Early Comparative Musicology and the Study of non-Western Music:  

A Critical Appraisal

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Abstract

This article focuses on the emergence of the academic discipline of comparative musicology at the end of the nineteenth century. As predecessor of ethnomusicology, comparative musicology paved the way for the study of non-Western music and many of its premises had a lasting impact on musical studies around the world until the present day. Based on the premise of the situatedness of knowledge production within the socio-cultural as well as political and technological contexts from which it emerges, this article critically examines the conditions of possibility for the study of non-Western and more generally human musical expression outside the Western art music paradigm around the turn from the nineteenth to the twentieth century. It scrutinises the paradigm shift in aesthetical discourse that made the institutionalisation of comparative musicology possible and addresses questions about the relevance of early studies of non-Western music by comparative musicologists for scholars working in postcolonial contexts today.

Comparative musicology is considered to be the immediate predecessor of ethnomusicology. It emerged in the last decades of the nineteenth century and was especially prominent in German-speaking academia up until the mid-twentieth century. Comparative musicology inspired much of the research into non-Western music that was undertaken in the latter half of the twentieth century, if not always in an explicit, direct sense, then at an even more fundamental level: as the very condition of possibility of studying music in and as oral culture. Though related in at times uneasy and ambivalent, if not openly conflictual, ways, the history of "African musicology" and other branches in the study of music could hardly be written without reference to comparative musicology (see Agawu, 2003; Nketia, 1986 & 1998).

In his seminal essay "The Scope, Method, and Aim of Musicology", originally published in 1885, the Austrian music historian Guido Adler defined comparative musicology
as "the comparison of tonal products, in particular the folk songs of various peoples, countries, and territories, grouping and ordering these according to their different characteristics for ethnographic purposes" (Adler, 1885, p. 14; Adler/Mugglestone, 1981, p. 13; translation of German original modified by the author). From the 1950s onward, the use of the term "comparative musicology" was then mostly restricted to historical contexts (cf. Merriam, 1977). Nevertheless, reference to the "founding fathers" of comparative musicology, most prominently Carl Stumpf and Erich Moritz von Hornbostel, is still found in many introductions to ethnomusicology today (e.g. Nettl, 2005; Stone, 2008).

The fact that non-Western music emerged as an object of rigid scientific investigation at the end of the nineteenth century is not as self-evident as it might seem. Take for instance one of the leading music critics and aestheticians of the nineteenth century, Eduard Hanslick, who in his much quoted treatise Of the Musically Beautiful, first published in German in 1854, wrote: "When the natives of Oceania clap rhythmically with pieces of metal and wooden sticks, accompanied by the most incredible howling, then that can be considered natural music, precisely because it is not music" (Hanslick, 1854, pp. 85-86; emphasis in the original).¹ It is not just Hanslick’s personal distaste for the indigenous music of Oceania – which, of course, paradigmatically stands for non-Western music more generally – but the common nineteenth-century assumption about the inferiority of non-Western culture that surfaces in this statement. Within the aesthetic ideal of so-called absolute music there was simply no place for the appreciation of communal music-making in oral traditions (on 'absolute music' see Dahlhaus, 1989). By reducing non-Western music to pure corporeality, it functioned in many nineteenth-century accounts as the antithesis of an overly intellectual, spiritualised Western music concept which claimed universal applicability, yet was restricted,

¹ If not indicated otherwise all translations of German sources quoted in this article have been made by the author.
on closer examination, to only a very limited realm – that of Western European bourgeois art music culture. Non-Western music, in this way, became an epitome of non-music.

Needless to say that the prejudices and aesthetic preconceptions of the time had an impact on the first generation of comparative musicologists, who, as a matter of fact, were all part of the same educated middle class that had chosen art music, as it were, as a quasi-religious object of adoration. The consumption of art music, now a form of symbolic capital, became a self-confirmatory act, assuring members of this class of their cultural sophistication (cf. Bourdieu, 1984). Yet, in contrast to many contemporaries, comparative musicologists considered non-Western and, we should add, non-art music more generally (which actually included European folk music traditions) worthy of scientific investigation. What we witness in their work, then, is a paradigm shift away from aesthetic formalism in favour of which Hanslick and others had argued. From its inception comparative musicology constituted itself as an interdisciplinary field, located at the crossroads of a number of academic traditions. One of the key questions of comparative musicology was about the general nature of human musicality, and its global comparative perspective inherently transcended narrow ethno- and socio-centric conceptualisations of music. In this regard there is a continuity between the texts of early comparative musicologists and the 'classic' ethnomusicological texts of the twentieth century such as John Blacking's *How Musical is Man?* (1973) and more recent works that centre around the question about the essence of human musicality (e.g. Turino, 2008).

This article argues for the situatedness of knowledge and knowledge production and scrutinises a particular moment in the history of the academic discipline of musicology. Examining the emergence of comparative musicology towards the end of the nineteenth century in Western and, more specifically, German academia, the article aims to show that the premises and suppositions of this new science can only be understood in its wider social,
political, as well as technological context. The overall positivistic outlook of late nineteenth-century attempts to theorise music-making and musicality cannot conceal the fact that the conceptualisation of scientific discourse as value-free and objective are rather problematic. After a brief general introduction into the social setup within which the academic study of non-Western societies took shape, the article will scrutinise theorisations of music under the paradigms of unilineal evolutionism as well as experimental aesthetics and so-called psychophysics. Trying to come to terms with the conditions of possibility that enabled the paradigm shift from aesthetic formalism to a truly empirical, experimental approach to musical aesthetics, the article will finally revisit the question of the situatedness of knowledge production and its implications for researchers in postcolonial contexts today.

**Social Change in the Nineteenth Century**

The nineteenth century presented itself to many contemporaries as a radical break with earlier centuries. From today's perspective, the time between the French Revolution and World War I is often described as breakthrough of the modern age. It marks the transition from a feudal and agrarian to an industrial capitalist society, a process prominently described as "great transformation" by the economist Karl Polanyi (1944). The French Revolution from 1789 to 1799 and in its wake the Napoleonic Wars fundamentally changed Europe's political order. The diffusion of the republican ideals of the Revolution contributed to the process of nation-building in many parts of Europe (Hobsbawm, 1962). Print media and increasing levels of literacy played a crucial role in the constitution of the public sphere and the emergence of national cultural forms and institutions (Anderson, 1983; Habermas, 1992).

Originating in eighteenth-century England, the Industrial Revolution spread into many parts of Western Europe, North America, and finally other parts of the world. In the 1830s the first railways were established. By the mid-nineteenth century steamships regularly
crossed the Atlantic and in 1848 the telegraph was introduced, enabling communication over vast geographical distances. These growing global networks allowed for an ever increasing movement of goods, people, and information over great geographical distances (cf. Inda & Rosaldo, 2002). The Industrial Revolution brought about enormous demographical change. With increased productivity, Europe experienced a population explosion that led to several major emigration waves predominantly directed towards the New World (Bade, 1992). Urbanisation and the transformation of social structures continued throughout the nineteenth century. The new urban elites and an ambitious educated middle class became a major socio-political force and with this new class a new bourgeois culture arose. Public concerts, sustained by this new audience, became a common feature of musical life. As Jürgen Habermas writes:

> Until the final years of the eighteenth century all music remained bound to the functions of the kind of publicity involved in representation – what today we call occasional or functional music. [...] The average person scarcely had any opportunity to hear music except in church or in the presence of the aristocracy. First, private Collegia Musica appeared on the scene; soon they established themselves as public concert societies. Admission for a payment turned the musical performance into a commodity; simultaneously, there arose something like music not tied to a purpose. For the first time an audience gathered to listen to music as such – a public of music lovers to which anyone who was propertied and educated was admitted. (Habermas, 1992, p. 101; English translation modified by the author)

The developments in Europe must not be regarded in isolation. The Industrial Revolution in Europe would have been impossible without raw materials from elsewhere. New and expanding markets were in turn needed for mass-produced goods. At the same time,
Christian mission societies intensified their activities in the early nineteenth century, disseminating not only the Christian worldview but also Western patterns of consumption (e.g. Meyer, 1999). More generally we have to bear in mind, of course, that the nineteenth century was also the age of European imperialism and colonialism, a fact that shapes north-south relations until the present day. As far as the German Empire is concerned, it acquired its colonial possessions in Africa, Oceania and East Asia relatively late, in 1884, and lost its colonies in the course of World War I (on German colonial history see Gründer, 1995). Nonetheless, this comparatively brief colonial period was crucial for the emergence of comparative musicology.

Thus, geopolitical developments had an impact on the academic engagement with non-Western music. Technological innovations, too, played a central role in the development of comparative musicology. With the invention of the phonograph by Thomas Edison in 1877 and then subsequently the invention of the gramophone in 1887, acoustic information and reproducible musical events became part of transnational data flows (see Connell & Gibson, 2003, pp. 45-70). While the commoditisation of music was already under way in the early nineteenth century, it was particularly the invention of the phonograph – actually the first mechanical device capable to record sound – that was constitutive for the institutionalisation of comparative musicology.

**Evolutionary Models in Music Theory**

The nineteenth century was characterised by an increasing diversification and internationalisation of the sciences. Most of the academic disciplines we take for granted today are the result of processes of specialisation that took place in the second half of the nineteenth century. And it was especially the social and geopolitical changes that aroused scientific curiosity. While sociology emanated from the social transformation in Europe that
resulted from industrialisation, the emergence of ethnology or socio-cultural anthropology can only be understood within the context of colonialism and the intensified contact between European and non-European societies that resulted from it. The nineteenth-century worldview can overall be described as scientistic, characterised by the faith in progress and development.

A major influence on nineteenth-century models of society was Darwin's biological theory of evolution. Darwin's ideas were popularised by the social philosopher Herbert Spencer, among others, who is considered to be the founder of so-called Social Darwinism. Evolutionism was particularly embraced in British and North American anthropology, referred to in this context as cultural or unilineal evolutionism. Under this paradigm human culture was conceptualised as a phenomenon that evolves from simple, supposedly 'primitive', stages to more complex forms. Culture in the models of nineteenth-century unilineal evolutionism was seen as a matter of degree, with Western civilisation serving as benchmark in measuring how 'cultured' any given society was (Eriksen & Nielsen, 2001, pp. 17-19).

Evolutionary models found their way into reflections on music. Spencer himself published an essay entitled *The Origin and Function of Music* in 1857 in which he postulated the hypothesis that music evolved from emotionally heightened speech. While normal speech, Spencer argued, was restricted in terms of pitch range, the more emotionally charged speech would be, the larger its tonal range becomes. Thus, the origin of music is explained by Spencer as "an overflow of nervous energy" (1890, p. 51) which would eventually result in music or song (cf. Graf, 1980, pp. 224-5; Spencer, 1890 & 1891). Darwin, too, speculated about the origin and evolution of music in his book *The Descent of Man* ([1871] 1998). In accordance with principle of 'natural selection' that is at the heart of his general theory of evolution, Darwin argued that music evolved originally as a means of courtship, similar to
bird song. In analogy, Darwin thought human music in its origin to be a means which male specimen would use to enhance their chances of reproduction (Darwin, [1871] 1998, pp. 591-2).

German authors in the second half of the nineteenth century also discussed the evolution of music and here, too, the question of its origin stood at the centre of interest. The sociologist Georg Simmel, for instance, concluded that "singing in its origin constituted emotionally heightened speech in terms of rhythm and modulation" ([1881] 1983, p. 111). In contrast to Spencer and Darwin, Simmel saw rhythm as the origin of music. He argued that human beings "when they are excited, due to faster blood circulation, feel the beats of the heart and the pulse more pronounced, and since these constitute a sharply defined rhythm, people overall tend towards rhythmic movement" (p. 116). A similar theory on the evolution of music out of rhythm was proposed by Richard Wallaschek, who belonged to the first generation of comparative musicologists in Austria (see Graf, 1974, pp. 15-16). In his book *Primitive Music* (1893), Wallaschek reviews both Darwin's and Spencer's work. Yet, he argued that "rhythm, in the sense of keeping in time, is the most important element in primitive music" (p. 262), for it would be the underlying principle of coordinated social action such as hunt or war and this, in turn, Wallaschek saw as critical for the survival of a group. In this way, Wallaschek contends, music is subject to the law of 'natural selection'.

**Experimental Aesthetics and Music Psychology in Germany**

Scepticism about evolutionist approaches was generally more pronounced in Germany than in Britain or North America. Though evolutionist thinking and the general imperialist assumption that the West is somehow more developed than the rest of the world prevailed in German discourse as well, the institutionalisation of comparative musicology in Germany was more significantly rooted in physiology and experimental psychology. Evolutionism
never assumed a central role, at least not as an explicit theoretical paradigm. The conceptualisation of progress, here, was rather tied to Enlightenment philosophy and the ideal of Bildung, which implied education as well as personal development or achievement.

In music theory an important work was Hermann von Helmholtz' *Die Lehre von den Tonempfindungen* ("On the Sensations of Tone as a Physiological Basis for the Theory of Music") ([1863] 1913), a study which scrutinises the physiological foundations of musical perception. In contrast to earlier music theorists, Helmholtz came to the conclusion that the diatonic scales used in Western music were not based on unchangeable natural laws, as Pythagorean interval theory suggests, but that they were rather the result of historical developments and are generally subject to change. A similar argument was then brought forward in Alexander John Ellis' studies of instrumental tunings, which he analysed with the help of the so-called Cent system that was invented by him (Ellis, 1885; Ellis & Hipkins, 1884). The Cent system divides the octave into 1200 equal micro-intervals and makes, thereby, possible the comparison of interval sizes, that is, distances between notes, independent of their relative pitch level. His system is in use in ethnomusicology up to the present day.

Another major influence on early comparative musicology is the so-called psychophysics and experimental aesthetics developed by Gustav Theodor Fechner. He published his major work, *Vorschule der Ästhetik* ("Preliminary Studies in Aesthetics"), in 1876 (see Fechner, [1876] 1978), and the book represented a radical break with the aesthetic models of German idealism which dominated musicological discourse. While aesthetic formalism attempted to normatively define 'the good, the beautiful, and the sublime', Fechner rejected such an approach as what he calls 'aesthetics from above' (Ästhetik von Oben). Based on an experimental methodology, he coined his own approach 'aesthetics from below' (Ästhetik von Unten), attempting to experimentally test aesthetic judgments made by
individuals. One of the conclusions he thus reached was that one and same aesthetic object might be judged quite differently by different individuals, due to differences in their personal, social, as well as cultural background (Fechner, [1876] 1978; Schneider, 1997, pp. 293-295).

The insights of experimental aesthetics and the physiology of tonal perception form the starting point of the work of Carl Stumpf. Stumpf's major work in the area of music psychology, *Tonpsychologie* ("Tone Psychology"), was published in two volumes in 1883 and 1890. While Helmholtz was preoccupied with research into the physiological foundations of sound perception more generally, Stumpf tried to link tonal perception – i.e. the physiological side of hearing – with so-called apperception, that is, how perceptual stimuli are actually evaluated and given meaning. Such evaluations, Stumpf argued, are not solely based on the stimuli – in this case, sounds – themselves, but are conditioned by a person's educational, socio-cultural and more personal biographical background. While Stumpf could collect data on the perception and apperception of tones and intervals, his experimental methodology, which he modelled after Fechner's approach, did not, however, allow him to test people's reactions to whole pieces of music or even genres and musical styles more generally. Aesthetic perception within the framework of the psychophysical approach inspired by Fechner was directed towards the investigation of stimuli that had to be methodologically isolated (Carl, 2004, pp. 123-5).

As mentioned earlier, Stumpf is considered as one of the 'founding fathers' of comparative musicology in Germany. With his background in experimental psychology, he was highly sceptical about evolutionary approaches to music. From his point of view the evolutionists were at a fault because they took musicality as something genetically inherited. Stumpf in contrast argued that music and its appreciation, as a psychologically highly complex activity, was something that had to be acquired individually, by means of musical training (Stumpf, 1885, p. 334). He was appointed as professor of psychology in Berlin in
1893, at that time still a branch of philosophy. Stumpf chaired the first department for psychology founded in Berlin in 1900. In the same year, he also instituted the Berlin phonogram archive, the first sound archive in Germany and among the first of its kind worldwide (Simon, 2000). He trained the first generation of comparative musicologists in Germany and is considered to be the founder of a school of thought called gestalt psychology. Among his students were Erich Moritz von Hornbostel, Otto Abraham, Curt Sachs, Robert Lachmann, and others, people who are sometimes referred to as Berlin School of comparative musicology (see also Christensen, 1991).

The Phonograph and Comparative Music Analysis

Stumpf became interested in non-Western music and attempted to develop experimental music psychology into a comparative music psychology (see Müller, 1995). A highly interesting essay in this connection is a text Stumpf published in 1886 under the title Lieder der Bellakula-Indianer ("Songs of the Bella Coola Indians"). It is not only the content of the essay but also its methodology and more generally the circumstances under which the study took place that are remarkable. In November 1885 Stumpf witnessed a performance of a group of Native Americans from British Columbia on the west coast of present-day Canada, which toured the German Empire as a so-called Völkerschau or ethnographic show (see Haberland, 1988, for more details on this particular group). Ethnographic shows became very popular in the nineteenth century as a commercial form of entertainment in which groups from outside Europe – supposedly 'exotic' people – gave folkloristic performances that prominently featured music and dance. These were staged in all kinds of contexts, among others in zoological gardens and within the framework of world and then later colonial exhibitions. Due to their exoticist nature, ethnographic shows are today often regarded as a
medium that fostered the popularisation of Social Darwinist and racist ideas (Carl, 2011; Arnold, 1995; Thode-Arora, 1989).

In the nineteenth century ethnographic shows attracted the interest of scholars and the general public alike. For researchers like Stumpf they provided the opportunity to study non-Western cultures first-hand without taking the trouble of travelling to far-away places. As far as cultural anthropology and related disciplines in the nineteenth century are concerned, they depended mainly on travel accounts as their data base and these accounts were quite different in quality. During the performance of the group of Native Americans Stumpf struggled to make transcriptions of their songs which he found extremely difficult given the fact that he was completely unfamiliar with their music. "At first at these performances", Stumpf writes, "one gets rather the impression more of indifferent noise [Heidenlärm], of a real devil's music, within which only here and there more specific pitches can be pinpointed" (1886, p. 406). It was experiences like this that made Stumpf highly sceptical about travel accounts some of which also featured transcriptions, yet without giving any reference to the difficulties involved in notating non-Western music (p. 407).

In the wake of the performance in Halle, Stumpf met several times with a member of the north American group named Nuskilusta and asked him to sing some songs for him. In his essay he gives a detailed account of the process of transcription which is worth quoting at some length:

First, I listened to each melody first without writing anything down in order to get an overall impression of the melodic and rhythmic construction, particularly to know how to begin the notation, whether to write all in C major or A minor. […] With any common melody of contemporary [Western] music I wouldn't have had any difficulty to instantly write the first notes in the appropriate key, even after listening to just a small portion. But in this case
repeated listening was required before the outline of successive note heads was in place in the desired key. Then the beginning of the melody was repeated and I wrote it down from memory with all corresponding note values and the correct rhythm. To get the continuation, Nuskilusta had to start over and over, which he did with inexhaustible patience. And thus, after singing ten times or more, the notation of a song materialised, which was then crosschecked the following day, after adding some more songs. (Stumpf, 1886, p. 407)

It was more than ten years later, in 1900, that the first phonographic recording was made in Berlin, an event that at the same time marks the beginning of the Berlin Phonogram Archive. Based on the recordings that were subsequently accumulated in the archive, Stumpf, Hornbostel and others published a number of monographic essays in which they presented transcriptions and analyses of archived material. If we look at the process of transcription in case of the phonograph and compare it to the above quoted passage describing Stumpf's process of transcription, a striking analogy becomes apparent. As Hornbostel in an essay on the advantages of the new technology, published together with Otto Abraham, writes:

With the phonograph one can record a piece of music and study it at leisure in the studio, where attention is not so much distracted visually as it is at performances by exotic peoples. Moreover, the phonograph has special advantages. It can be adjusted to run fast or slow at will, and thus one can bring to the ear's comprehension pieces of music whose tempo was too quick to be analysed at its original speed, by playing them at a slower tempo, in corresponding transposition. Furthermore one can split up the piece of music into small fragments, play back single measures, even single notes, and make
precise annotations and measurements in conjunction with them. (Abraham & Hornbostel, [1904] 1975, pp. 195-6)

It is important to note that, like Stumpf, Hornbostel and Abraham considered the actual object of study of comparative musicology to be the unconscious realm of tonal imagination; comparative musicology was conceptualised by its early practitioners as a kind of musical 'psychophysics'. Accordingly, a tone system for them did not represent the conscious reflection of the musical system of any particular culture (which would be something like an 'indigenous music theory'), but rather an unconscious psychological as well as physical or embodied structure. Conceptually, the gap between the (unconscious) tone system and the (conscious) theorisation of it is mirrored in the gap between orality and literacy. Thus, by studying oral cultures, early comparative musicologists hoped to get clues about the unconscious structures of musical processes.

Apart from the analysis of phonograph recordings, Hornbostel and Abraham also sought to apply the methodology of experimental psychology in the field. They write:

> We have the opportunity from time to time to see exotic musicians coming to us; if we would not restrict ourselves to listen to and study their music, but to also do acoustic experiments with them, we would get interesting insights into their tone system and their musical characteristics. (Abraham & Hornbostel, [1904] 1975, p. 195)

A model for music-psychological field research of this kind was the so-called Torres Strait expedition which British scholars carried out in 1898/99. They actually took a mobile laboratory along which they used for music-psychological tests (see Clayton, 1996). While Hornbostel worked on the preparation of questionnaires for a German expedition of similar nature, these studies were never carried out due to the outbreak of World War I in 1914. In the course of the war the German Empire lost all its colonial possessions which consequently
changed the working conditions of comparative musicologists in Berlin tremendously (Carl, 2004, p. 134).

**Conclusion**

As I tried to demonstrate in the foregoing, the beginnings of comparative musicology can only be understood in their wider context of technological, social, as well as political developments. From today's point of view we have to evaluate the scholarly depiction of non-Western music by early musicologists highly critical, particularly if we consider the impact of colonialism and imperialism on the work of scholars in Western academia. Disciplines which in their scientific endeavours focused on societies outside the West – ethnology or anthropology as much as comparative musicology or comparative linguistics – relied on a cooperation with colonial administrations. Sometimes they actively collaborated with government officials, and it is, in these disciplines, of paramount importance to come to terms with their colonial heritage. In anthropology, the critical re-evaluation of disciplinary history has begun around the 1970s (see for instance Leclerc, 1973). In ethnomusicology similar attempts to critically engage in the discipline's past have been made, leading to questions about the role of colonialism as well as racism in the construction and representation of non-Western music (Agawu, 2003; Bohlman & Nettl, 1991; Bohlman & Radano, 2000). Surely more studies of this kind are needed.

On the other hand we have to acknowledge that it is studies like the above discussed which, disregarding their sometimes ethnocentric bias, paved the way for the academic study of music beyond the realm of Western art. Some of the concerns of early comparative musicology were later taken up again in ethnomusicology. Beyond the social Darwinist rhetoric of Wallaschek's book on 'primitive music', for instance, we find that his remarks on the role of music and dance in the constitution of group solidarity and ethnic identity became
crucial issues in later research (cf. Seeger, 1991, p. 349). Stumpf's and Hornbostel's so-called 'psychophysical' approach laid the foundations for later research in music psychology as well as in musical phenomenology. And finally, comparative musicology's opposition to the aesthetic tradition of idealism, the rejection of aesthetic formalism in favour of an experiential aesthetic 'from below', might well be its most important legacy for us today. Experimental aesthetics was a necessary step towards a culture relativistic view on music, and its perspective essentially contradicts elitist, ethno- or socio-centric conceptualisations of music.

To conclude, I think that research into the history of ideas is a worthwhile exercise not least because it can show us that science does not work independently of the social and cultural contexts from which it emerges. In the production of knowledge we always have to consider, as Michel Foucault (1994) remarked, an unconscious side. Yet, as Foucault writes, the history of science should not so much regard the unconscious as "the negative side of science – that which resists it, deflects it, or disturbs it", but rather "reveal a positive unconscious of knowledge: a level that eludes the consciousness of the scientist and yet is part of scientific discourse, instead of disputing its validity and seeking to diminish its scientific nature" (Foucault, 1994, pp. xi-xii; emphasis in the original). With this in mind, we should regard the study of earlier paradigms in comparative musicology as an opportunity to critically reflect on our academic praxis and reconsider it in the light of its own cultural and social conditions.

References


